

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Previously Presented) A filter assembly for a washing machine, comprising:
a filter case, comprising:
a body with an interior space formed therein;
an inlet and an outlet each positioned on a on an outer peripheral portion of the
body; and
a passage provided within the interior space of the body and configured to
provide for communication between the inlet and outlet; and
a filter provided in the filter case, the filter comprising a shaft with a plate disposed at one
end thereof and in opposition to the passage so as to prevent a particle from passing through the
passage, wherein the filter is configured to gather particles in a central portion thereof in
response to a centrifugal force generated when fluid flows into the filter case through the inlet
and generates a circular flow within the body as it whirls towards the passage.
2. (Previously Presented) The filter assembly of claim 1, wherein the filter case is
substantially cylindrical.

3. (Previously Presented) The filter assembly of claim 2, wherein the inlet is provided on an outer surface of the filter case and is oriented in a tangential direction with respect to the filter case.

4. (Previously Presented) The filter assembly of claim 1, wherein the plate and the passage are substantially circular.

5. (Previously Presented) The filter assembly of claim 1, wherein the filter case further comprises a partition wall provided in the body and configured to partition the interior space formed within the body into a first chamber in communication with the inlet and a second chamber in communication with the outlet, wherein the passage extends through the partition wall.

6. (Previously Presented) The filter assembly of claim 5, wherein the body is substantially tubular, and wherein the inlet is provided on an outer surface of the body and is oriented in a tangential direction with respect to the body.

7. (Previously Presented) The filter assembly of claim 5, further comprising an impeller provided in the second chamber and a motor configured to rotate the impeller, wherein the impeller is configured to forcibly circulate fluid within the filter assembly.

8. (Original) The filter assembly of claim 5, wherein the filter is provided in the first chamber.

9. (Previously Presented) The filter assembly of claim 1, wherein the filter further comprises a cap configured to be fitted to the filter case, wherein the shaft extends from the cap toward the passage, and wherein the plate is provided at an end of the shaft opposite the cap so as to face the passage, with a predetermined gap formed between the plate and the passage.

10. (Original) The filter assembly of claim 9, wherein the shaft is disposed along a central axis of the filter case.

11. (Previously Presented) The filter assembly of claim 9, wherein the filter comprises a single body.

12. (Previously Presented) The filter assembly of claim 9, wherein a size of the plate is greater than a corresponding size of the passage.

13. (Previously Presented) The filter assembly of claim 9, wherein an edge of the plate overlaps a corresponding rim of the passage.

14. (Previously Presented) The filter assembly of claim 9, wherein the filter further comprises a handle extending from the cap.

15. (Previously Presented) A filter assembly for a washing machine, comprising:
a filter case, comprising:
a tube having an inlet and an outlet provided on a circumferential portion of the tube;
a partition wall provided in the tube and configured to partition an internal space of the tube into a first chamber in communication with the inlet, and a second chamber in communication with the outlet; and
an opening extending through the partition wall; and
a filter, comprising:
a cap fitted to the filter case;
a shaft extending from the cap toward the opening; and
a plate provided at an end of the shaft and positioned facing the opening in the partition wall with a predetermined gap formed between the plate and the partition wall, wherein the plate is configured to prevent particles from passing through the opening, and wherein the filter is configured to gather particles in a central area thereof in response to a centrifugal force generated when fluid whirls through the first chamber towards the opening.

16. (Previously Presented) The filter assembly of claim 15, wherein the tube is substantially cylindrical and the inlet is provided on an outer surface of the tube and is oriented in a tangential direction with respect to the tube.

17. (Previously Presented) The filter assembly of claim 15, wherein the plate and the opening are substantially circular.

18. (Previously Presented) The filter assembly of claim 15, further comprising an impeller provided in the second chamber and a motor configured to drive the impeller, wherein the impeller is configured to forcibly circulate fluid within the filter assembly.

19. The filter assembly of claim 15, wherein the shaft is disposed along a central axis of the tube.

20. (Previously Presented) The filter assembly of claim 15, wherein the filter comprises a single body.

21. (Previously Presented) The filter assembly of claim 15, wherein a size of the plate is greater than a corresponding size of the opening.

22. (Previously Presented) The filter assembly of claim 15, wherein an edge of the plate overlaps a corresponding rim of the opening.

23. (Previously Presented) The filter assembly of claim 15, wherein the filter further comprises a handle extending from the cap.

24. (Currently Amended) The filter assembly of claim 1, wherein the shaft extends continuously between the cap and the plate in a longitudinal direction of the filter case.

25. (Previously Presented) The filter assembly of claim 5, wherein the tangential orientation of the inlet causes fluid introduced into the first chamber to flow along an inner circumference of the first chamber so as to generate a circular flow within the first chamber and draw particles in the fluid towards the central portion of the filter.

26. (Previously Presented) The filter assembly of claim 7, wherein the impeller is configured to draw water in the first chamber through the passage into the second chamber and out through the outlet.

27. (Previously Presented) The filter assembly of claim 9, wherein the predetermined gap is sized such that it allows wash water to pass therethrough and into the

second chamber via the passage, while retaining particles greater than a predetermined size within the first chamber.

28. (Previously Presented) The filter assembly of claim 27, wherein the particles greater than a predetermined size are retained by at least one of the shaft and the plate as the fluid whirls toward the passage.

29. (Previously Presented) The filter assembly of claim 14, wherein, when the filter assembly is installed in a washing machine, the handle is accessible from an exterior of the washing machine.

30. (Previously Presented) A washing machine comprising the filter assembly of claim 1.

31. (Currently Amended) A filter assembly of claim 15, wherein the shaft extends continuously from the cap to the plate in a longitudinal direction of the tube.

32. (Previously Presented) A washing machine comprising the filter assembly of claim 15.

33. (Currently Amended) A filter assembly for a washing machine, comprising:
a filter case, comprising:

a body with an interior space formed therein;
an inlet and an outlet each positioned ~~on a~~ on an outer peripheral portion of the body; and
a passage provided within the interior space of the body and configured to provide for communication between the inlet and outlet; and
a filter provided in the filter case, the filter comprising a plate disposed in opposition to the passage so as to prevent a particle from passing through the passage, wherein the filter is configured to gather particles in a central portion thereof in response to a centrifugal force generated when fluid flows into the filter case through the inlet and generates a circular flow within the body as it whirls towards the passage.

34. (Previously Presented) The filter of claim 33, wherein the filter case further comprises a partition wall provided in the body and configured to partition the interior space formed within the body into a first chamber in communication with the inlet and a second chamber in communication with the outlet, wherein the passage extends through the partition wall.

35. (Previously Presented) The filter of claim 34, wherein the filter further comprises a cap configured to be fitted to the filter case, and a shaft which extends from the cap toward the passage, and wherein the plate is provided at an end of the shaft opposite the cap so as to face the passage, with a predetermined gap formed between the plate and the passage.

36. (Previously Presented) The filter of claim 35, wherein the filter case is substantially cylindrical and the plate and the passage are substantially circular, and wherein the inlet is provided on an outer surface of the filter case and is oriented in a tangential direction with respect to the filter case.

37. (Previously Presented) The filter of claim 36, wherein the tangential orientation of the inlet causes fluid introduced into the first chamber to flow along an inner circumference of the first chamber so as to generate a circular flow within the first chamber and draw particles in the fluid towards the central portion of the filter.

38. (Previously Presented) The filter of claim 35, wherein a size of the plate is greater than a corresponding size of the passage such that an edge of the plate overlaps a corresponding rim of the passage, and wherein the predetermined gap is sized such that it allows wash water to pass therethrough and into the second chamber via the passage while retaining particles greater than a predetermined size within the first chamber.